PCT OPERATIONS

FACSIMILE TRANSMISSION COVER SHEET

DATE: *April 19, 2001*

TO: *Natalie Berzta*

TELEPHONE: *(202) 721-5491*
FAX NO.: *(202) 530-1055*

FROM: *Barbara Campbell*

TELEPHONE: *703 305-3631*
FAX NO.: 703-308-4785 OR 703-305-3230

MESSAGE: *Error Report that was omitted from Missing Requirement*

NUMBER OF PAGES *12* (INCLUDING THIS PAGE)

****
***   TX REPORT   ***
****

TRANSMISSION OK

TX/RX NO   4931
CONNECTION TEL   92025301055
SUBADDRESS
CONNECTION ID   FCH&S D.C.
ST. TIME   04/19 14:36
USAGE T   01.50
PGS. SENT   12
RESULT   OK

RAW SEQUENCE LISTING
ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: _09/674,973_

Source: _PCT_

Date Processed by STIC: _12/26/2000_

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:
1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY
FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.
PATENTIN 2.1 e-mail help: __patin21help@uspto.gov__ or phone 703-306-4119 (R. Wax)
PATENTIN 3.0 e-mail help: __patin30help@uspto.gov__ or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE __CHECKER VERSION 3.0 PROGRAM__, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.
Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be downloaded from the USPTO website at the following address:
http://www.uspto.gov/web/offices/pac/checker

<09/674,973> (handwritten top right)

<110> ← list applicant
<120> ← give invention title
<140> ← U.S. serial number (application)
<141> ← U.S. filing date
<160> Sequence identity list — total number of sequences

Does Not Comply
Correct d Diskette Needed

SEQUENCE LISTING

COMMON FOR ALL SEQUENCES:
SEQUENCE TYPE: Peptide
SEQUENCE UNIT: Amino Acid

<210> 1
<211> 18
<213> PRT
SEQUENCE ID NO: 1 → describe organism: Artificial Sequence,
SEQUENCE LENGTH: 18 amino acids   <400> 1   Unknown, or scientific name (Genus/species)
R H P S W P W T R C L R M R P P R S
1   5   10   15

The submitted file (a portion shown as a sample) is invalid for ... U.S. ...

If Unknown or Artificial Sequence explain in <220>-<223> section

SEQUENCE ID NO: 2
SEQUENCE LENGTH: 31 amino acids
G T R A G P G P G A S G C V H Q E A E R V S Q A H R G R T G
1   5   10   15
Q
       25   30   20

SEQUENCE ID NO: 3
SEQUENCE LENGTH: 32 amino acids
G G T R A G P G P G A S G C V H Q E A E R V S Q A H R G R T
1   5   10   15
G Q
       25   30   20

↓ Per Sequence Rules, do not use one-letter amino acids. Use three-letter amino acids and number them under every 5 amino acids. DO NOT use TAB codes between amino acid numbers. Use space characters.

Please: 1) consult new Sequence Rules
            2) consult sample Sequence Listing, attached, for valid format.

FYI Please review th
Sequence Listing to ensure that a corresponding explanati n is presented in the <220> to
<223> fields of each sequence which presents at least on n or Xaa.

<110> Smith, John

Smith, Jane

<120> Example of a Sequence Listing

<130> 01-00001

<140> US 08/999,999

<141> 1998-02-28

<150> EP 91000000

<151> 1997-12-31

Please consult

<160> 2

<170> PatentIn ver. 2.0

<210> 1

<211> 403

<212> DNA

<213> Paramecium aurelia

<220>

<221> CDS

<222> 341..394

<300>

<301> Doe, Richard

<302> Isolation and Characterization of a Gene Encoding a

Protease from Paramecium sp.

<303> Journal of Fictional Genes

<210> 1

<211> 4

<212> I - 7

<213> 1988-06-20

<400> 1

```
ctactctact ctactctcat ctactatctt ctttggatct ctgagtctgc ctgagtggta   60

ctcttgagtc ctggagatct ctcctctcac atgtgatcgt cgagactgac cgatagatcg  120

ctgactgact ctgagatagt cgagcccgta cgagacccgt cgagggtgac agagagtggg  180

cgcgtgcgcg cagagcgccg cgccggtgcg cgcgcgagtg cgcggtgggc cgcgcgaggg  240

ctttcgcggc agcggcggcg ctttccggcg cgcgcccgtc cgccctaga cctgagaggt  300

cttctcttcc ctcctcttca ctagagaggt ctatatatac atg gtt tca atg ttc   355
                                                Met Val Ser Met Phe
```

```
agc ttg tct ttc aaa tgg cct gga ttt tgt ttg ttt gtc tgtttgctc        403
```

Ser Leu Ser Phe Lys Trp Pro Gly Phe Cys Leu Phe Val
              10   15

<210> 2

<211> 18

<212> PRT

<213> Paramecium aurelia

<400> 2

Met Val Ser Met Phe Ser Leu Ser Phe Lys Trp Pro Gly Phe Cys Leu
1   5   10   15

Phe Val

identifier and their accompanying information as shown in the following table. The numeric identifier shall be used only in the "Sequence Listing." The order and presentation of the items of information in the "Sequence Listing" shall conform to the arrangement given below. Each item of information shall begin on a new line and shall begin with the numeric identifier enclosed in angle brackets as shown. The submission of those items of information designated with an "M" is mandatory. The submission of those items of information designated with an "O" is optional. Numeric identifiers <110> through <170> shall only be set forth at the beginning of the "Sequence Listing." The following table illustrates the numeric identifiers.

Numeric Identifier	Definition	Comments and Format	Mandatory (M) or Optional (O)
<110>	Applicant	Preferably max. of 10 names; one name per line; preferable format: Surname, Other Names, and/or Initials.	M
<120>	Title of Invention		M
<130>	File Reference	Personal file reference	M when filed prior to assignment of appl. number
<140>	Current Application Number	Specify as: US 07/999,999 or PCT/US96/99999	M, if available
<141>	Current Filing Date	Specify as: yyyy-mm-dd	M, if available
<150>	Prior Application Number	Specify as: US 07/999,999 or PCT/US96/99999	M, if applicable include priority documents under 35 USC 119 and 120
<151>	Prior Application Filing Date	Specify as: yyyy-mm-dd	M, if applicable
<160>	Number of SEQ ID NOs	Count includes total number of SEQ ID NOs	M
<170>	Software	Name of software used to create the Sequence Listing	O
<210>	SEQ ID NO:#:	Response shall be an integer representing the SEQ ID NO shown	M
<211>	Length	Respond with an integer expressing the number of bases or amino acid residues	M

14

<212>   ...Type?

Whether presented
sequence mole-
cule is DNA,
RNA, or PRT
(protein). If
a nucleotide
sequence con-
tains both DNA
and RNA frag-
ments, the
type shall be
"DNA." In ad-
dition, the
combined DNA/
RNA molecule
shall be further
described in
the <220> to
<223> feature
section.

<213>   Organism

Scientific name,
i.e. Genus/species,
Unknown or Artifi-
cial Sequence. In
addition, the
"Unknown" or
"Artificial Se-
quence" organisms
shall be further
described in the
<220> to <223>
feature section.

M

<220>   Feature

Leave blank after
<220>. <221-223>
provide for a
description of
points of bio-
logical signi-
ficance in the
sequence.

M, under the
following condi-
tions: if "n,"
"Xaa," or a mod-
ified or unusual
L-amino acid or
modified base was
used in a se-
quence; if ORGAN-
ISM is "Artifi-
cial Sequence" or
"Unknown"; if
molecule is
combined DNA/RNA.

<221>   Name/Key

Provide appropriate
identifier for
feature, pre-
ferably from
WIPO Standard
ST.25 (1998),
Appendix 2,
Tables 5 and 6

M, under the fol-
lowing conditions:
if "n," "Xaa," or
a modified or un-
usual L-amino
acid or modified
base was used in
a sequence

<222>   Location

Specify location
within sequence;
where appropriate
state number of
first and last
bases/amino acids

M, under the fol-
lowing conditions:
if "n," "Xaa," or
a modified or un-
usual L-amino
acid or modified

		in feature	base was used in a sequence
<223>	Other Information	Other relevant information; four lines maximum	M, under the following conditions: if "n," "Xaa," or a modified or unusual L-amino acid or modified base was used in a sequence; if ORGANISM is "Artificial Sequence" or "Unknown"; if a molecule is combined DNA/RNA.
<300>	Publication Information	Leave blank after <300>	O
<301>	Authors	Preferably max of ten named authors of publication; specify one name per line; preferable format: Surname, Other Names and/or Initials	O
<302>	Title		
<303>	Journal		O
<304>	Volume		O
<305>	Issue		O
<306>	Pages		O
<307>	Date	Journal date on which data published; specify as yyyy-mm-dd, MMM-yyyy or Season-yyyy	O
<308>	Database Accession Number	Accession number assigned by database including database name	O
<309>	Database Entry Date	Date of entry in database; specify as yyyy-mm-dd or MMM-yyyy	O
<310>	Patent Document Number	Document number; for patent-type citations only. Specify as, for example: US 07/999,999	O

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1/29/99 1:53 PM

<311>	Patent Filing Date	Document filing date, for patent-type citations only; specify as yyyy-mm-dd	O
<312>	Publication Date	Document publication date, for patent-type citations only; specify as yyyy-mm-dd	O
<313>	Relevant Residues	FROM (position) TO (position)	O
<400>	Sequence	SEQ ID NO should follow the numeric identifier and should appear on the line preceding the actual sequence	M

5. Section 1.824 is revised to read as follows:

1.824 Form and format for nucleotide and/or amino acid sequence submissions in computer readable form.

(a) The computer readable form required by 1.821(c) shall meet the following specifications:

(1) The computer readable form shall contain a single "Sequence Listing" as either a diskette, series of diskettes, or other permissible media outlined in paragraph (c) of this section.

(2) The "Sequence Listing" in paragraph (a) (1) of this section shall be submitted in American Standard Code for Information Interchange (ASCII) text. No other formats shall be allowed.

(3) The computer readable form may be created by any means, such as word processors, nucleotide/amino acid sequence editors or other custom computer programs; however, it shall conform to all specifications detailed in this section.

(4) File compression is acceptable when using diskette media, so long as the compressed file is in a self-extracting format that will decompress on one of the systems described in paragraph (b) of this section.

(5) Page numbering shall not appear within the computer readable form version of the "Sequence Listing" file.

(6) All computer readable forms shall have a label permanently affixed thereto on which has been hand-printed or typed: the name of the applicant, the title of the invention, the date on which the data were recorded on the computer readable form, the operating system used, a reference number, and an application serial number and filing date, if known.

(b) Computer readable form submissions must meet these format requirements:

(1) Computer: IBM PC/XT/AT, or compatibles, or Apple Macintosh;

(2) Operating System: MS-DOS, Unix or Macintosh;